What is claimed is:

1. A method of cleaning process residues from the surface of a substrate processing chamber component having holes therein, the method comprising:

(a) at least partially immersing the component into a cleaning solution comprising hydrofluoric acid and nitric acid; and

(b) passing a non-reactive gas through the holes in the component.

2. A method according to claim 1 wherein the non-reactive gas is flowed through the holes at a pressure that is sufficiently high to prevent back flow of cleaning solution into the holes.

3. A method according to claim 1 wherein the non-reactive gas is flowed through the holes at a pressure of at least about 2 psi.

4. A method according to claim 1 wherein the flow rate of the non-reactive gas passing through the holes is at least about 100 sccm.

5. A method according to claim 1 wherein the concentration of hydrofluoric acid in the cleaning solution is at least about 1 percent.

6. A method according to claim 1 wherein the concentration of nitric acid in the cleaning solution is at least about 20 percent.

7. A method according to claim 1 wherein in the non-reactive gas is nitrogen.

8. A method according to claim 1 wherein the component is an electrostatic chuck, and the holes in the component are gas ports.

9. A method of cleaning residues from the surface of an electrostatic chuck having gas ports, the method comprising:

(a) at least partially immersing the electrostatic chuck into a cleaning solution comprising hydrofluoric acid in a concentration of at least about 1 percent and nitric acid in a concentration of at least about 20 percent; and

(b) flowing a non-reactive gas through the gas ports in the electrostatic chuck at a pressure of at least about 2 psi.

10. A method according to claim 9 wherein the flow rate of the non-reactive gas passing through the gas ports is at least about 100 sccm.

11. A method according to claim 9 wherein in the non-reactive gas is nitrogen.

12. A method of cleaning sputtering residues from the surface of an electrostatic chuck having gas ports, the method comprising:

(a) at least partially immersing the electrostatic chuck into a cleaning solution comprising hydrofluoric acid in a concentration of at least about 1 percent and nitric acid in a concentration of at least about 20 percent; and

(b) flowing nitrogen through the gas ports in the electrostatic chuck at a pressure of at least about 2 psi and a flow rate of at least about 100 sccm.